Exhibit 300: Part I: Summary Information and Justification (All Capital Assets)

I.A. Overview

1. Date of Submission:	9/7/2006
2. Agency:	Department of Energy
3. Bureau:	National Nuclear Security Administration
4. Name of this Capital Asset:	NNSA ASC LANL Roadrunner Platform (NNSA ASC Future Platform)
5. Unique Project (Investment) Identifier: (For IT investment only, see section 53. For all other, use agency ID system.)	019-05-01-11-01-1050-00
6. What kind of investment will this be in FY2008? (Please NOTE: Investments moving to O&M ONLY in FY2008, with Planning/Acquisition activities prior to FY2008 should not select O&M. These investments should indicate their current status.)	Planning
7. What was the first budget year this investment was submitted to OMB?	FY2007
8. Provide a brief summary and justification for this investment, including a brief description of how this closes in part or in whole an identified agency performance gap:	
9. Did the Agency's Executive/Investment Committee approve this request?	Yes
a. If "yes," what was the date of this approval?	8/24/2006
10. Did the Project Manager review this Exhibit?	Yes
11. Contact information of Project Manager?	
Name	
LeDoux, Herman, and Lee, Sander	
Phone Number	505-667-9875 / 202-586-2698
Email	hledoux@doeal.gov / sander.lee@nnsa.doe.gov
12. Has the agency developed and/or promoted cost effective, energy efficient and environmentally sustainable techniques or practices for this project.	Yes
a. Will this investment include electronic assets (including computers)?	Yes
b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only)	
1. If "yes," is an ESPC or UESC being used to help fund this	

investment?	
2. If "yes," will this investment meet sustainable design principles?	
3. If "yes," is it designed to be 30% more energy efficient than relevant code?	
13. Does this investment support one of the PMA initiatives?	Yes
If "yes," check all that apply:	Expanded E-Government, R and D Investment Criteria
13a. Briefly describe how this asset directly supports the identified initiative(s)?	The NNSA ASC Program will use the Roadrunner platform to support the Presidential expanded electronic government initiative through collaborations with DoD, Homeland Security, and other weapons complex leadership throughout the federal government, through the reuse of Research and Development "high performance computing" in support of the Department of Energy's weapons stockpile stewardship program and other programs across the complex.
14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)? (For more information about the PART, visit www.whitehouse.gov/omb/part.)	Yes
a. If "yes," does this investment address a weakness found during the PART review?	No
b. If "yes," what is the name of the PART program assessed by OMB's Program Assessment Rating Tool?	Advanced Simulation and Computing (ASCI)
c. If "yes," what PART rating did it receive?	Effective
15. Is this investment for information technology?	Yes
If the answer to Question: "Is this investment for information technology?" was "Yes," complete this sub-section. If the answer is "No," do not answer this sub-section.	
For information technology investments only:	
16. What is the level of the IT Project? (per CIO Council PM Guidance)	Level 3
17. What project management qualifications does the Project Manager have? (per CIO Council PM Guidance):	(1) Project manager has been validated as qualified for this investment
18. Is this investment identified as "high risk" on the Q4 - FY 2006 agency high risk report (per OMB's "high risk" memo)?	Yes
19. Is this a financial management system?	No
a. If "yes," does this investment address a FFMIA compliance area?	
1. If "yes," which compliance area:	
2. If "no," what does it address?	

b. If "yes," please identify the system name(s) and system acronym(s) as reported in the most recent financial systems inventory update required by Circular A-11 section 52

20. What is the percentage breakout for the total FY2008 funding request for the following? (This should total 100%)

Hardware	60
Software	30
Services	10
Other	0
21. If this project produces information dissemination products for the public, are these products published to the Internet in conformance with OMB Memorandum 05-04 and included in your agency inventory, schedules and priorities?	N/A

22. Contact information of individual responsible for privacy related questions:

Name	
Udy, Warren S	
Phone Number	202-586-1283
Title	Information Technology Specialist
E-mail	warren.udy@hq.doe.gov
23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval?	No

I.B. Summary of Funding

Provide the total estimated life-cycle cost for this investment by completing the following table. All amounts represent budget authority in millions, and are rounded to three decimal places. Federal personnel costs should be included only in the row designated "Government FTE Cost," and should be excluded from the amounts shown for "Planning," "Full Acquisition," and "Operation/Maintenance." The total estimated annual cost of the investment is the sum of costs for "Planning," "Full Acquisition," and "Operation/Maintenance." For Federal buildings and facilities, life-cycle costs should include long term energy, environmental, decommissioning, and/or restoration costs. The costs associated with the entire life-cycle of the investment should be included in this report.

Table 1: SUMMARY OF SPENDING FOR PROJECT PHASES (REPORTED IN MILLIONS) (Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions)									
	PY - 1	**PY 2006**	**CY 2007**	**BY 2008**	**BY + 1 2009**	**BY + 2 2010**	**BY + 3 2011**	**BY + 4**	**Total**

	and Earlier							**and Beyond**	
Planning									
Budgetary Resources	0	0	0	0					
Acquisition									
Budgetary Resources	0	0	25	75					
Subtotal Planning & Acquisition									
Budgetary Resources	0	0	25	75					
Operations & Maintenance									
Budgetary Resources	0	0	0	0					
TOTAL									
Budgetary Resources	0	0	25	75					
Government FTE Costs									
Budgetary Resources	0	0	0.03	0.03					
Number of FTE represented by Costs:	0	0	0.25	0.25					

Note: For the cross-agency investments, this table should include all funding (both managing partner and partner agencies). Government FTE Costs should not be included as part of the TOTAL represented.

2. Will this project require the agency to hire additional FTE's?   No

  a. If "yes," How many and in what year?

3. If the summary of spending has changed from the FY2007 President's budget request, briefly explain those changes:

I.C. Acquisition/Contract Strategy

1. Complete the table for all (including all non-Federal) contracts and/or task orders currently in place or planned for this investment. Total Value should include all option years for each contract. Contracts and/or task orders completed do not need to be included.

Contracts/Task Orders Table:																	
Row Number	Contract or Task Order Number	Type of Contract/ Task Order	Has the contract been awarded?	If so what is the date of the award? If not, what is the planned	Start date of Contract/ Task Order	End date of Contract/ Task Order	Total Value of Contract/ Task Order	Is this an Interagency Acquisition?	Is it performance based?	Competitively awarded?	What, if any, alternative financing option is being used?	Is EVM in the contract?	Does the contract include the required security and privacy	Name of CO	CO Contact information (phone/email)	Contracting Officer Certification Level	If N/A, has the agency determined the CO assigned has the competencies and skills necessary to

				award date?									clauses?				support this acquisition?
1	TBD	Firm Fixed Price with milestone payments tied to specific deliverables and schedule dates; and performance on hardware acceptance tests with specific performance criteria	Yes	9/7/2006	10/1/2006	9/30/2011	165	No	Yes	Yes	NA	No	Yes	Padilla, Patrick	505-667-9782 / papadilla@lanl.gov	N/A	Yes

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:

EVM is not required on fixed price investments; ASC Roadrunner cost/schedule progress will be tracked through an analysis of milestone completion within projected cost estimates. NNSA's federal Contracting Officer Representative on the ASC Program for Roadrunner is Bob Meisner (phone: 202-586-0908; email: bob.meisner@nnsa.doe.gov); and the Los Alamos National Laboratory M&O Contracting Officers on Roadrunner are: Patrick Padilla, 505-667-9782, papadilla@lanl.gov; or Barton Burson, 505-665-5907, bursomb@lanl.gov.

3. Do the contracts ensure Section 508 compliance?	Yes
a. Explain why:	ASC Roadrunner Platform will conform to Section 508. This is a centralized computer system housed in a large computing facility. The entire building that will house the platform is ANSI A117.1.1998 compliant on which Section 508 is based. Users access the system via network connections. Accessibility issues of those users are the responsibility of their IT Department.
4. Is there an acquisition plan which has been approved in accordance with agency requirements?	Yes
a. If "yes," what is the date?	8/31/2006
b. If "no," will an acquisition plan be developed?	
1. If "no," briefly explain why:	

I.D. Performance Information

In order to successfully address this area of the exhibit 300, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures must be provided. These goals need to map to the gap in the agency's strategic goals and objectives this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60 percent, increase citizen participation by 300 percent a year to achieve an overall citizen participation rate of 75 percent by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module, milestones, or investment, or general goals, such as, significant, better,

improved that do not have a quantitative or qualitative measure.

Agencies must use Table 1 below for reporting performance goals and measures for all non-IT investments and for existing IT investments that were initiated prior to FY 2005. The table can be extended to include measures for years beyond FY 2006.

Performance Information Table 1:					
Fiscal Year	Strategic Goal(s) Supported	Performance Measure	Actual/baseline (from Previous Year)	Planned Performance Metric (Target)	Performance Metric Results (Actual)

All new IT investments initiated for FY 2005 and beyond must use Table 2 and are required to use the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM). Please use Table 2 and the PRM to identify the performance information pertaining to this major IT investment. Map all Measurement Indicators to the corresponding "Measurement Area" and "Measurement Grouping" identified in the PRM. There should be at least one Measurement Indicator for at least four different Measurement Areas (for each fiscal year). The PRM is available at www.egov.gov.

Performance Information Table 2:							
Fiscal Year	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvement to the Baseline	Actual Results

I.E. Security and Privacy

In order to successfully address this area of the business case, each question below must be answered at the system/application level, not at a program or agency level. Systems supporting this investment on the planning and operational systems security tables should match the systems on the privacy table below. Systems on the Operational Security Table must be included on your agency FISMA system inventory and should be easily referenced in the inventory (i.e., should use the same name or identifier).

All systems supporting and/or part of this investment should be included in the tables below, inclusive of both agency owned systems and contractor systems. For IT investments under development, security and privacy planning must proceed in parallel with the development of the system/s to ensure IT security and privacy requirements and costs are identified and incorporated into the overall lifecycle of the system/s.

Please respond to the questions below and verify the system owner took the following actions:

1. Have the IT security costs for the system(s) been identified and integrated into the overall costs of the investment:

   a. If "yes," provide the "Percentage IT Security" for the budget year:

2. Is identifying and assessing security and privacy risks a part of the overall risk management effort for each system supporting or part of this investment.

3. Systems in Planning - Security Table:			
Name of System	Agency/ or Contractor Operated System?	Planned Operational Date	Planned or Actual C&A Completion Date
Roadrunner			

4. Operational Systems - Security Table:							
Name of System	Agency/ or Contractor Operated System?	NIST FIPS 199 Risk Impact level	Has C&A been Completed, using NIST 800-37?	Date C&A Complete	What standards were used for the Security Controls tests?	Date Complete(d): Security Control Testing	Date the contingency plan tested

5. Have any weaknesses related to any of the systems part of or supporting this investment been identified by the agency or IG?

   a. If "yes," have those weaknesses been incorporated agency's plan of action and milestone process?

6. Indicate whether an increase in IT security funding is requested to remediate IT security weaknesses?

   a. If "yes," specify the amount, provide a general description of the weakness, and explain how the funding request will remediate the weakness.

7. How are contractor security procedures monitored, verified, validated by the agency for the contractor systems above?

8. Planning & Operational Systems - Privacy Table:					
Name of System	Is this a new system?	Is there a Privacy Impact Assessment (PIA) that covers this system?	Is the PIA available to the public?	Is a System of Records Notice (SORN) required for this system?	Was a new or amended SORN published in FY 06?
Roadrunner					

I.F. Enterprise Architecture (EA)

In order to successfully address this area of the business case and capital asset plan you must ensure the investment is included in the agency's EA and Capital Planning and Investment Control (CPIC) process, and is mapped to and supports the FEA. You must also ensure the business case demonstrates the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's EA.

1. Is this investment included in your agency's target enterprise architecture?	No

   a. If "no," please explain why?

The National Nuclear Security Administration's (NNSA) Advanced Simulation and Computing (ASC) Roadrunner platform is not included in the Department of Energy's (DOE) target enterprise architecture because it is not being designed to support the agency's business management IT infrastructure. Instead, this IT investment is being created to directly support the DOE agency-designated mission under the strategic theme of Nuclear Security. The Roadrunner platform is being funded as part of the NNSA ASC Program as a whole and not as a platform by itself. The NNSA ASC Program will use Roadrunner to directly support the DOE goal of nuclear deterrence and achieves this goal through use of its state-of-the-art advanced simulation and computing capabilities. Roadrunner will replace the soon to retire Q platform, enabling continued technological advances within the tri-laboratory (Sandia National Laboratories, Lawerence Livermore National Laboratory, and Los Alamos National Laboratory) stockpile stewardship weapons complex.

2. Is this investment included in the agency's EA Transition Strategy?	No

a. If "yes," provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment.

b. If "no," please explain why?

The Department of Energy Enterprise Architecture (EA) Transition Plan for fiscal year 2007 will provide a sequencing plan to the Target Architecture for Scientific Research. The Advanced Simulation and Computing (ASC) Roadrunner Platform will use extensive scientific research by developing predictive codes with complex scientific modeling that are hosted on a High Performance Computing Environment. These simulation "codes" will provide a mechanism to verify and validate the safety, security, and reliability of the nuclear weapons stockpile without nuclear testing. The effort to include this investment in the sequencing plan that will be part of the Transition Plan that maps to the Target Architecture has not started, but is scheduled in the near future. This investment will be included in the DOE February 2007 Transition Plan.

3. Service Reference Model (SRM) Table:

Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to http://www.whitehouse.gov/omb/egov/.

Agency Component Name	Agency Component Description	Service Domain	FEA SRM Service Type	FEA SRM Component	FEA Service Component Reused Name	FEA Service Component Reused UPI	Internal or External Reuse?	BY Funding Percentage

Use existing SRM Components or identify as "NEW". A "NEW" component is one not already identified as a service component in the FEA SRM.

A reused component is one being funded by another investment, but being used by this investment. Rather than answer yes or no, identify the reused service component funded by the other investment and identify the other investment using the Unique Project Identifier (UPI) code from the OMB Ex 300 or Ex 53 submission.

'Internal' reuse is within an agency. For example, one agency within a department is reusing a service component provided by another agency within the same department. 'External' reuse is one agency within a department reusing a service component provided by another agency in another department. A good example of this is an E-Gov initiative service being reused by multiple organizations across the federal government.

Please provide the percentage of the BY requested funding amount used for each service component listed in the table. If external, provide the funding level transferred to another agency to pay for the service.

4. Technical Reference Model (TRM) Table: To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.				
FEA SRM Component	FEA TRM Service Area	FEA TRM Service Category	FEA TRM Service Standard	Service Specification (i.e. vendor or product name)

Service Components identified in the previous question should be entered in this column. Please enter multiple rows for FEA SRM Components supported by multiple TRM Service Specifications

In the Service Specification field, Agencies should provide information on the specified technical standard or vendor product mapped to the FEA TRM Service Standard, including model or version numbers, as appropriate.

5. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc)?	No
a. If "yes," please describe.	
6. Does this investment provide the public with access to a government automated information system?	No
a. If "yes," does customer access require specific software (e.g., a specific web browser version)?	
1. If "yes," provide the specific product name(s) and version number(s) of the required software and the date when the public will be able to access this investment by any software (i.e. to ensure equitable and timely access of government information and services).	

Exhibit 300: Part II: Planning, Acquisition and Performance Information

II.A. Alternatives Analysis

Part II should be completed only for investments identified as "Planning" or "Full Acquisition," or "Mixed Life-Cycle" investments in response to Question 6 in Part I, Section A above.

In selecting the best capital asset, you should identify and consider at least three viable alternatives, in addition to the current baseline, i.e., the status quo. Use OMB Circular A- 94 for all investments, and the Clinger Cohen Act of 1996 for IT investments, to determine the criteria you should use in your

Benefit/Cost Analysis.

1. Did you conduct an alternatives analysis for this project?	Yes
a. If "yes," provide the date the analysis was completed?	8/21/2005
b. If "no," what is the anticipated date this analysis will be completed?	

c. If no analysis is planned, please briefly explain why:

2. Alternative Analysis Results:				
Use the results of your alternatives analysis to complete the following table:				
Send to OMB	**Alternative Analyzed**	**Description of Alternative**	**Risk Adjusted Lifecycle Costs estimate**	**Risk Adjusted Lifecycle Benefits estimate**
True	1	Continue using existing system.	36	0
True	2	Upgrade existing platform which could include: replace processor with faster ones, increase the amount of memory or increase size of system.	1393	0
True	3	Purchase new platform.	165	0

3. Which alternative was selected by the Agency's Executive/Investment Committee and why was it chosen?

4. What specific qualitative benefits will be realized?

II.B. Risk Management

You should have performed a risk assessment during the early planning and initial concept phase of this investment's life-cycle, developed a risk-adjusted life-cycle cost estimate and a plan to eliminate, mitigate or manage risk, and be actively managing risk throughout the investment's life-cycle.

1. Does the investment have a Risk Management Plan?	
a. If "yes," what is the date of the plan?	
b. Has the Risk Management Plan been significantly changed since last year's submission to OMB?	

c. If "yes," describe any significant changes:

2. If there currently is no plan, will a plan be developed?

    a. If "yes," what is the planned completion date?

    b. If "no," what is the strategy for managing the risks?

3. Briefly describe how investment risks are reflected in the life cycle cost estimate and investment schedule:

Firm fixed-price contracts are executed with milestone schedules and payments that factor in investment risks.

II.C. Cost and Schedule Performance

1. Does the earned value management system meet the criteria in ANSI/EIA Standard-748?	No

2. Answer the following questions about current cumulative cost and schedule performance. The numbers reported below should reflect current actual information. (Per OMB requirements Cost/Schedule Performance information should include both Government and Contractor Costs):

a. What is the Planned Value (PV)?	0
b. What is the Earned Value (EV)?	0
c. What is the actual cost of work performed (AC)?	0
d. What costs are included in the reported Cost/Schedule Performance information (Government Only/Contractor Only/Both)?	Contractor Only
e. "As of" date:	9/1/2006
3. What is the calculated Schedule Performance Index (SPI= EV/PV)?	0
4. What is the schedule variance (SV = EV-PV)?	0
5. What is the calculated Cost Performance Index (CPI = EV/AC)?	0
6. What is the cost variance (CV=EV-AC)?	0
7. Is the CV% or SV% greater than +/- 10%? (CV%= CV/EV x 100; SV%= SV/PV x 100)	No
a. If "yes," was it the?	
b. If "yes," explain the variance:	
c. If "yes," what corrective actions are being taken?	

	d. What is most current "Estimate at Completion"?	150000000
	8. Have any significant changes been made to the baseline during the past fiscal year?	No
	8. If "yes," when was it approved by OMB?	No

Comparison of Initial Baseline and Current Approved Baseline

Milestone Number	Description of Milestone	Initial Baseline		Current Baseline				Current Baseline Variance		Percent Complete
		Planned Completion Date	Total Cost (Estimated)	Completion Date		Total Cost		Schedule (# days)	Cost	
				Planned	Actual	Planned	Actual			